

CASE STUDY: CITY OF PORTLAND GREEN BUILDING FEEBATE

Note: This policy is not yet finalized by Portland, and has changed since its original concept. Initially, the policy proposal was for a Carbon Feebate, but has evolved into being a Green Building Feebate.

1. THE POLICY

The City of Portland has had green building policies for City owned buildings in place since 2001. Following the success of these policies, the City Council directed the Portland Office of Sustainable Development to consider extending the policies. Due to the establishment of a Global Warming Action Plan, which included carbon reduction targets (10% reduction in CO₂ emissions by 2010 from 1990, 80% reduction by 2050), policy development initially focused on carbon, in particular a Carbon Feebate type policy.

Initially the Portland Office of Sustainable Development sought to fast track the Carbon Feebate policy development process. Following some unfortunate media coverage which portrayed the City as already having decided on the policy design and details, and the subsequent public resistance from homebuilders, the City decided that it would be beneficial to have more extensive stakeholder participation to be part of the policy development. In accordance with this plan, nine facilitated, collaborative public meetings were held to critique the options being proposed by the City. At the conclusion of these meetings, it was proposed that the policy should have a broader reach than just energy or carbon. Consequently, the feebate policy focus shifted from carbon to green building.

The policy was redrafted and referred to Green Building Standards, specifically LEED® and Earth Advantage, as opposed to just energy standards (such as ENERGY STAR). It was also deemed very important for the policy to be adaptive to updates in standards to which it was tied, so Portland is developing a 3-year update plan to keep the policy current. The next step is for the draft policy to go to the City Commissioners for internal review, after which point it will return to stakeholder committee for review before it is opened to the public for a 30-60 day comment and consultation period. Afterwards, the policy will be revised considering public comments and then go to the City Council for final approval as an ordinance in early 2009.

Commercial Building Proposal for July 2010

The Green Building Feebate is designed to reward high performance buildings with a green building fund. This fund would be financed by permit fees collected from buildings that only build to the minimum requirements of Oregon's (OR) energy code. If a developer provides a LEED® scorecard showing commitment to achieve a minimum LEED® rating, no building permit fee is charged. If the building fails to achieve the proposed rating, the fee is charged later. After investigating cost of achieving LEED® certification, Portland set the level of reward such that it would offset the additional costs of achieving a particular LEED® rating. Any commercial development of 5,000-50,000 sf will be subject to a fee (business as usual), a waiver or a reward. The same calculation is used for the fee as for the reward:

Fee waiver: Silver certification including minimum Energy & Atmosphere and Water Efficiency credits

Initial reward: Gold certification including minimum Energy & Atmosphere and Water Efficiency credits

Double reward: Platinum certification including minimum Energy & Atmosphere and Water Efficiency credits

Super reward: Cascadia GBC Living Building Challenge including net-zero energy and water requirements

The selection of minimum LEED® Energy & Atmosphere points for the waiver and initial reward are intended to improve energy efficiency by approximately 30% and 45% better than Oregon energy code.

Fee and Reward Calculation:

Carbon Fee and Reward Payment = Energy Use Intensity (EUI) Building Type x Square footage x
(Carbon emissions ÷ Unit of energy) x (\$12/ton CO₂) x 15-30 years building life (varying
according to building type)

Fee/Reward Structure:

Fee and reward: \$1.73 - \$3.46 per sf

Super reward: \$8.65 - \$17.30 per sf

The minimum Energy & Atmosphere credit requirements should be seen as a mechanism to stretch the market, rather than transform it because the commercial market has already been transformed in Portland.

Residential Buildings

Any home above 1,200 sf will be subject to the fee, and any home, regardless of size, can be eligible for the rewards. Stakeholders wanted to design the policy such that it did not reward large homes. Consequently, the reward is a flat reward for residential, though the fee varies with the size of the house. The City elected to include the Earth Advantage Silver Program certification as an alternative to LEED®, as it is considered by homebuilders as a less costly certification to achieve. There is ample representation of Earth Advantage and other third party certifications in the residential market; currently, approximately 10% of homes are achieving some level of LEED®, Earth Advantage, or ENERGY STAR certification.

Reward Structure:

Waiver: Earth Advantage Silver with a minimum ENERGY STAR Home Energy Rater Score (HERS) score of 75 = ENERGY STAR certification.

Initial reward: Earth Advantage Gold or LEED® for Homes Silver certifications with a minimum HERS score of the current minimum for Earth Advantage Gold): \$1,285-\$2,570.

Double reward: Earth Advantage Platinum or LEED® for Homes Gold certification with a minimum HERS score of the current minimum for Earth Advantage Platinum): \$2,570 - \$5,140.

Super reward: LEED® for Homes Platinum or Cascadia GBC Living Building Challenge with net zero water and energy: \$12,850 - \$25,700

Fee Structure:

Fee: \$0.51 - \$1.03 per sf

2. ENERGY EFFICIENCY POTENTIAL

2.1. Policy Uptake

The City of Portland modeled four potential policy uptake scenarios in their analysis, which informed them as to whether the City would have sufficient funding to pay the rewards a high adoption scenario. Adoption ranged from 25% in the base case scenario to 70% in the high adoption scenario.

2.2. Energy Savings Potential

There is a wide range of energy savings potential for this project based on potential uptake scenarios. All incentives are tied to modeled performance. There is no incentive for monitoring actual building performance.

3. COST OF IMPLEMENTATION

3.1. Program Cost to the City

Half a million dollars has been assumed for technical assistance and administration for the fee.

3.2. Cost to the Developer

An economic assessment that is being performed for the City of Portland assumes that a 1% cost premium would be necessary for the waiver, and a 2% cost premium for the reward. Developer Bill Jackson confirmed this estimate with his Mississippi Avenue Lofts development, which had a 2-3% cost premium and is designed to meet LEED® Gold standards. The intention of the policy is to offset all of the added costs. For those projects that do not comply, the fees would represent a small, but noteworthy, percent of total project cost (<1-4%).

4. ADMINISTRATIVE FEASIBILITY

4.1. Administering Agency

The Office of Sustainable Development has five members of staff, two of whom will oversee aspects of the Green Building Feebate policy.

4.2. Ease of Initiation

The policy required a good deal of deliberation and negotiation in order to make it politically feasible. Thus, the policy development phase proved to be challenging, with the hopes that this work upfront would smooth way for a relatively conflict-free implementation.

4.3. Funding Requirements

The Green Building Fund will pay for the policy implementation; this fund will come from the new building permit fees. If excess dollars are generated through the fee, the community will advise on spending.

4.4. Educational Outreach Requirements

It was critical to include stakeholder participation in the policy development and review process. As evidenced by the change in the policy to refer to green building standards, stakeholder input altered the course of this policy dramatically. It was suggested that a small table format is used in the stakeholder sessions to ensure all parties have the chance to voice their opinions, rather than having the sessions dominated by a vocal few.

5. STAKEHOLDER IMPACTS

5.1. Acceptability to the Developer

This policy is not viewed by the Portland Office of Sustainable Development as just a commercial green buildings market transformation policy. Rather the policy was motivated by the desire to increase specific aspects of green building, energy and water efficiency, and particularly affect development practices in areas with less exposure and experience with green building.

The green building market resides primarily in the inner city areas, where developers and occupants have had years of exposure to green building. In fact, 60% of commercial development in Portland is already LEED® registered or certified. The majority of new and projected residential development, however, is located on the outskirts of the city where affordability is the critical determinant in home development and purchase. In these areas, neither developers nor residents have shown much interest in green building. Therefore, one key success factor for the feebate policy is successful outreach to homebuilders (with emphasis on small homebuilders that specialize in single-family homes) and realtors. Many were concerned about potential project cost premia necessary to avoid paying the fee, and how this would affect the profitability of their projects.

According to local developer, Bill Jackson, it is imperative that other stakeholders – namely, members from banking, appraisal, labor unions, and trade groups – understand the requirements of the policy so they are in a position to support the city in implementing the policy. Otherwise, the administrative cost to the developer of achieving the required green building standards may be unacceptably high.

5.2. Acceptability to Stakeholders in Real Estate Community

The City felt it could have engaged more effectively with realtors, the Portland Business Alliance and Portland Metropolitan Association of Building Owners and Managers (BOMA) to understand their perception and concerns about this type of policy. It was suggested that the City needs to develop a solid business case for green building in their regional context with well documented case studies of successful projects to support the claim that these projects are feasible outside of government and commercial buildings.

6. REFERENCES

Vinh Mason, Portland Office of Sustainable Development;
Bill Jackson, Developer, Mississippi Avenue Lofts